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AGRIVIEW

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2013 Agriculture Scholarship

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Saskatchewan Agriculture

Minister's Message

I am honoured to proclaim October as Agriculture Month in Saskatchewan. This is a month to recognize and appreciate the importance of the agriculture industry in Saskatchewan.

Agriculture has an important role in the new Saskatchewan: a Saskatchewan where we have one of the lowest unemployment rates in the country; where there are more opportunities than ever before for our people; and where we enjoy an unparalleled quality of life, in our cities and on our farms.

Agriculture is a vital contributor to Saskatchewan's diversified economy; one that has grown at record levels over the past five years and is recognized as the strongest in Canada. Through continuing research and innovation in biotechnology, sustainable farming practices and increased crop production, agriculture is improving life for people both here in Saskatchewan and around the world.

Saskatchewan's farmers and ranchers are hard-working and innovative; you are stewards of our land and animals. Through your work, Saskatchewan helps to fuel our economy and meet the global demand for food. Like our province, the agricultural industry has grown. In 2011, for the first time ever, Saskatchewan was Canada's top-exporter of agri-food products, exporting more than $10 billion. Agriculture accounts for more than one-third of Saskatchewan's exports. We are known worldwide as a reliable and safe supplier of food products.

Our government will continue to look for new opportunities for our producers. We will work to improve market access, remove barriers and invest in research and biotechnology. We are committed to agriculture - not only because it is the way of life for so many of us, but because it drives our economy and supports all Saskatchewan residents, no matter where they live.

In a world of growing demand for food, there is tremendous opportunity for agriculture in Saskatchewan. We owe it to ourselves to talk about it, know more about it and to appreciate it. We have a good story to tell. It's our time to tell it.

In conclusion, I would like to take this opportunity to extend my appreciation to the farm and ranch families of Saskatchewan for their ongoing dedication to the agriculture industry.

Sincerely,

Lyle Stewart

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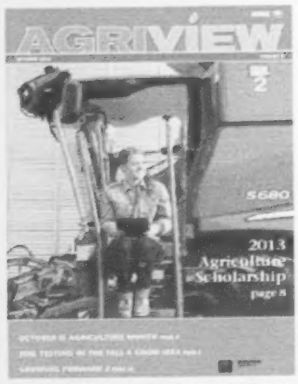


Cover: Agriculture in Saskatchewan is vibrant, diversified and stronger than ever, with even more opportunity for growth. Check out the Agriculture Awareness feature starting on page 8.

Saskatchewan Agriculture

AGRIVIEW is published by the Communications Branch of Saskatchewan Agriculture for Saskatchewan farmers and farm and food organizations. **For more information, call 306-787-5160 or e-mail agriview@gov.sk.ca.**
To view this publication online, visit www.agriculture.gov.sk.ca/programs-services.

Fall fertilization of established forage stands

by Sarah Sommerfeld, PAg
Regional Forage Specialist, Outlook
Regional Services Branch

Established forages require nitrogen, phosphorus, potassium, sulphur and micronutrients for plant maintenance and growth. Harvesting hay removes a substantial amount of nutrients from the soil. Grazing forages allows for nutrient cycling to occur, but the amount and availability of these recycled nutrients may not be great enough to sustain stand productivity.

Low disturbance equipment used to band fertilizer.

Nutrients can be applied to forage stands in either inorganic (commercial fertilizers) or organic (manure, feed residues) forms. Commercial fertilizers are best applied when soil temperatures are low and the chance of precipitation is high. As such, fall fertilization of established forage stands can be an option for producers.

Benefits of fall fertilizer applications include:

- The opportunity to make use of early spring moisture;
- Access to fields that are too wet in the spring;
- Spreads work load throughout the growing season;

Broadcasting of nutrients is the most common application method to existing stands but can be inefficient due to volatilization losses or minimal nutrient movement into the soil. Banding of nutrients is a more efficient application method. The fertilizer is placed in the root zone and is readily available for plant use. This application method does require the use of low disturbance equipment.

Alternatives to commercial fertilizers include manure applications or winter feeding of livestock on established stands. Nutrient content and availability of manure can vary. Knowing the nutrient content of the manure can assist in determining an appropriate application rate.

Soil conditions and type of forage species growing will determine required rates of nutrient application regardless of nutrient source. Established grass stands will benefit primarily from nitrogen and phosphorus applications, but may also benefit from potassium and sulphur. Legume stands will benefit from phosphorus, potassium and sulphur applications. A soil test is a cost-effective tool to assess what nutrients are lacking and provide fertilization recommendations based on production goals.

FOR MORE INFORMATION

- Contact your local Regional Forage Specialist; or
- Contact the Agriculture Knowledge Centre at 1-866-457-2377.

PEST CONTROL ISSUES FACED BY SASKATCHEWAN FRUIT GROWERS IN 2012

by Forrest Scharf, BA, BSA, AAg
Provincial Specialist, Fruit Crops
Crops Branch

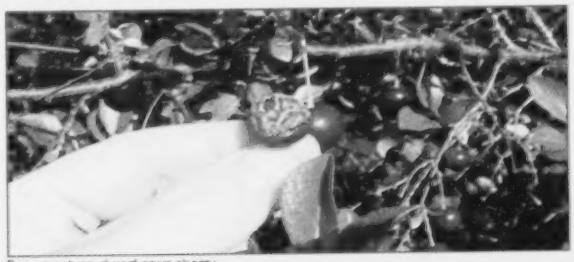
There is a thriving commercial fruit industry in Saskatchewan that takes pride in producing high quality crops; however some yield and quality was lost in 2012 by growers who did not control pests. A mild winter, combined with a moist, warm and windy production season made pests problematic. The diseases that caused the most damage were: brown rot blossom blight on dwarf sour cherry; entomosporium leaf and berry spot on saskatoon berries; and botrytis grey mold on raspberry and strawberry. The most damaging insects were: cherry fruit fly and apple maggot on dwarf sour cherry; mites on raspberry, strawberry and saskatoons, saskatoon sawfly and apple curculio on saskatoons; and apple maggot on apples.

Growers need to determine whether or not pests are reaching economically damaging levels that require control measures. In order to maximize pesticide efficacies, knowledge of disease and insect life cycles in combination with proper timing of spray applications is critical. Climate conditions have a significant influence on crop, disease and insect development. Given significant variation in crop development timing (from year-to-year and between different growing regions), spray applications have to correspond with crop or pest development rather than calendar dates.

An *Entomosporium* disease control model (computer program) was developed for saskatoon berries by Dr. Quinn Holtslag. This program guides saskatoon berry growers to know when they should spray fungicides. The general principles employed in Holtslag's model can also be applied to manage brown rot on dwarf sour cherry and apples. These diseases are spread via splashing rain droplets during the blossom period therefore fungicides need to be applied prior to and during this period to protect the flowers (so they can develop into fruit.) Applying fungicides as per label recommendations will provide good disease control and will safeguard fruit yield and quality. In regard to insect control, growers are advised to inspect their crops and place sticky traps within their orchards to monitor population levels. When insects are detected, pesticides may be applied according to label recommendations. Spraying significantly before detection is not generally recommended because the insects can then avoid contact with the pesticides.

FOR MORE INFORMATION

- Contact Forrest Scharf, Provincial Specialist, Fruit Crops at (306) 787-4666.



Brown rot on dwarf sour cherry.

Choosing crop varieties never easy

by Sherrilyn Phelps, M.Sc., PAg, CCA
Regional Crops Specialist, North Battleford
Regional Services Branch

Selecting a variety is never easy as there are many choices and a lot of factors to consider. Yield is important but you also want a variety that is suitable for your area and your production practices. Choosing the factors that are most important for your operation can help limit variety choice. Some factors to consider include: maturity, height, herbicide tolerance, disease resistance and ability to withstand lodging.

Maturity is important especially in areas with shorter growing seasons or if you are considering late seeding. Longer maturity often means higher yields but also runs the risk that the crop will not be fully mature when the fall frost hits. Early seeding of longer maturing varieties is important.

Another factor to consider is harvest management. If you are looking for a variety to straight cut then you want one that has good straw strength to prevent lodging. Taller varieties can increase the amount of straw at harvest time. In areas where straw management is a concern, shorter varieties may be of interest.

Another consideration with variety selection is disease resistance. Improved resistance can reduce your reliance on fungicides and help protect yield. Knowing which diseases are concerns in your area is important when deciding the level of resistance needed. With canola varieties, resistance to sclerotinia or clubroot should be considered when the risk has been increased.

Variety choice is also important when considering weed control. Choosing herbicide-tolerant varieties can help you deal with problem weeds or previous herbicide residues.

In summary, there are many things to consider when choosing a variety. Once you have chosen a variety the next step is ensuring the seed is of good quality with good germination.

FOR MORE INFORMATION on variety choice:

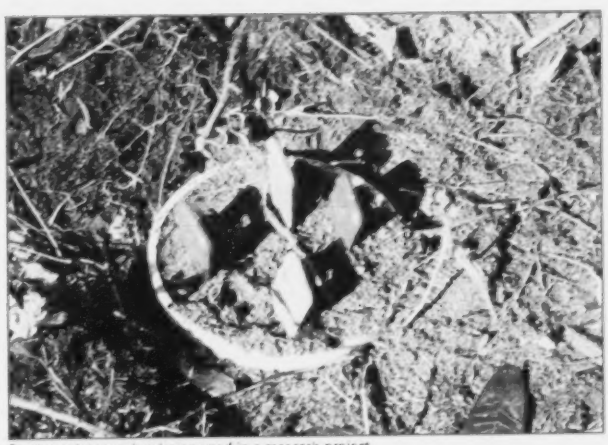
- Contact your Regional Crop Specialist; or
- The Agriculture Knowledge Centre at 1-866-457-2377.

FALL IS THE TIME FOR SOIL TESTING

by Ken Panchuk, PAg
Provincial Specialist, Soils
Crops Branch

Soil testing in early October gives producers extra time in which to gather truly representative samples from fields, and provides critical nutrient information for fall-banding of urea and anhydrous ammonia as well as for winter crop planning.

In early November, just before freeze-up (or in early spring just after the thaw), the depth of moisture recharge is measured using a soil moisture probe. This information is given to the laboratory that did the original soil test so they can adjust their initial recommendation, to give you a realistic target yield for crop planning and fertilizer purchases.



Root simulator probes being used in a research project.

Soil testing not only confirms the amount of nutrients remaining in each field but also provides additional valuable soil information such as soil texture, pH level and electrical conductivity (a measure of soil salinity). This information explains past crop yields and helps set realistic target yields for the next growing season.

Collecting 15 to 20 cores of soil and mixing them into a composite is the traditional sampling method; however, benchmark sampling has become popular and these field sites are easy to locate in future years thanks to global positioning systems (GPS). Benchmark sampling is used with the root simulator probe technology that measures the supply rate of nutrients rather than the level of nutrients (which the traditional system measures). Fresh soil samples should be immediately shipped to, or dropped off at the lab with the detailed information field sheet to provide the quickest, most accurate information about the nutrient needs for the next crop.

The nutrient recommendations are used in adopting the industry-led 4-R nutrient stewardship plan: the *right* source, at the *right* rate, applied at the *right* time and in the *right* place.

FOR MORE INFORMATION

- Contact a Regional Crop Specialist near you; or
- Call the Agriculture Knowledge Centre at 1-866-457-2377.

Storing potatoes to minimize loss

by Connie Achtymichuk, PAg
Provincial Specialist, Vegetables
Crops Branch

It's been a very hectic growing season, but for potato growers, an equally challenging season is just beginning. This is the potato storage season.

Managing the crop in the field to effectively prevent bacterial diseases, late and early blight and fusarium dry rot is the first step in ensuring a trouble free storage season. Harvesting at temperatures lower than 8 C or higher than 15 C can increase bruising. If potato pulp temperatures climb above 20 C during harvest, the risk of leak and pink rot increases. These diseases can spread rapidly in storage, creating massive losses.

Water makes up about 85 per cent of the potato, and sales are based on weight of the potatoes going out. Therefore, ideal storage practices minimize water loss, while managing airflow and temperature to prevent disease spread. This is usually done by keeping the storage at around 4 C. If the potatoes going into storage are healthy, the relative humidity is kept above 98 per cent with good air movement to prevent any water from settling on the tubers.

Despite all of one's efforts in managing fields, problems still may occur. It is important to leave potatoes from problem areas, such as low wet spots in the field, or to store them separately from the remainder of the pile so that they can be managed separately or disposed of quickly if they start to break down.

A curing period to bring the potatoes down to 4 C is standard practice. This allows the potatoes to cure and to heal, but if the crop quality is poor due to disease, the curing process may be eliminated in favour of quickly cooling the crop. Relative humidity may also need to be kept low.

It is impossible to improve the quality of the crop in storage, so it is important to know what you are dealing with when putting the crop into storage.

FOR MORE INFORMATION

- Contact Connie Achtymichuk, Provincial Vegetable Specialist at (306) 787-2755.

DON'T BURN THAT CROP RESIDUE

by Ken Panchuk, PAg
Provincial Specialist, Soils
Crops Branch

At this time of year, Saskatchewan producers are considering how to manage excessively heavy crop residue. It is important to remember that burning is not a recommended residue management technique, except as a last resort.

Most crop residues are finely chopped and spread uniformly during the harvest operation. Some chaff is collected for livestock feed and straw is baled for feed and bedding. Sometimes harvest conditions are not favourable and heavy crop residues become difficult to manage even with the use of heavy harrows or light tillage (for example while banding urea or anhydrous ammonia fertilizer in the fall). Unmanageable amounts of straw may require spreading the residue with a set of heavy harrows and burning the excess straw in the windrows.

There are alternatives to burning for managing excess straw. Stubble can be left tall to hold the snow cover and the next crop can be seeded between the rows of stubble. Another option is a crop residue mulcher such as a wide-swath specialized rotary mower that can chop residue finely enough that it can flow around seeder openers.

If you must resort to burning, strict guidelines must be followed to minimize the risk to yourself, your neighbours and the environment.

Choose a day with weather conditions that will disperse the smoke quickly. Generally, this would be the afternoon of a sunny day, with high clouds and a light wind blowing away from populated areas.

Do not burn at night. Conditions for good smoke dispersal are generally the poorest at night. Fires must be put out by nightfall.

Fires must be supervised. Ensure the areas to be burned have adequate fireguards to prevent unwanted spread of the fire. Ensure the smoke is not drifting toward built-up or populated areas, such as farm yards, towns or cities, or across roads (which can cause traffic accidents).

Contact your rural municipality and local fire department ahead of time to inform them of your plans to burn crop residue.

FOR MORE INFORMATION

- Contact the Agriculture Knowledge Centre at 1-866-457-2377; or
- Contact your local Regional Crop Specialist.

Chopping cereal straw. Photo by Schulte.

Proper application of livestock manure

by Patrick Mooleki, PhD, PAg
Soil/Nutrient Management Specialist
Agriculture Knowledge Centre

Livestock manure is a good source of plant nutrients and organic matter that can improve crop productivity and soil quality if managed properly.

Proper management of manure requires that the manure should be treated as a fertilizer rather than a waste product that needs to be disposed of. First, the manure should be analysed to determine its nutrient composition. Unlike chemical fertilizers, livestock manure has a variable composition. It contains many nutrients such as nitrogen (N), phosphorus (P), potassium (K), sulphur (S), magnesium (Mg), manganese (Mn), zinc (Zn), iron (Fe), boron (B) as well as organic matter and water. Thus, the exact composition of livestock manure must be determined through analysis.

Liquid manure injection using dragline.

Test results of manure provide nutrient composition in available and total quantities. Available forms of the nutrients is what can be absorbed by crops, whereas the rest of the nutrients are in organic forms and require microbial breakdown and mineralization before they can be taken up by crops. Based on manure source and composition, the potential mineralization of the nutrients can be estimated. Typically, 25 per cent of the organic N, 50 per cent of the total P and 90 – 100 per cent of the total K are considered to be available to the crop in the year of application.

Having determined manure composition and potential nutrient availability, the actual amount of nutrients to be applied depends on nutrient requirements of the crop to be grown as indicated by a soil test. Manures often contain more of one nutrient relative to another compared to the balance that crops need. Solid cattle manure tends to have higher P than N levels while liquid swine manure tends to be relatively higher in N and lower in P. For the purpose of environmental protection, P levels in solid cattle manure should be considered in determining application rates. In liquid swine manure, N levels are considered first in determining application rates.

Livestock manure can be applied in the fall or in the spring. Injection of liquid swine manure and incorporation of solid cattle manure are recommended practices. Significant N losses can occur when livestock manure of high available N content is applied on the soil surface. Livestock manure application on frozen soil or snow is not recommended.

FOR MORE INFORMATION

- Contact the Agriculture Knowledge Centre at 1-866-457-2377.

FALL BANDING OF NITROGEN FERTILIZER

by Patrick Mooleki, PhD, PAg
Soil/Nutrient Management Specialist
Agriculture Knowledge Centre

Fall banding of nitrogen (N) fertilizer can be an excellent soil nutrient management practice.

Urea (46:0:0) and anhydrous ammonia (82:0:0) are the N fertilizers used for fall banding. When banded in the soil, both urea and anhydrous ammonia convert to ammonium, the stable form of nitrogen that remains fixed to the soil and organic matter throughout the winter (under Saskatchewan conditions).

When applying N fertilizer in the fall, ensure that potential N losses through volatilization, leaching and denitrification are minimized. This can be achieved by banding the urea and anhydrous ammonia close to freeze-up. The general recommendation for fall soil testing and fall banding is anytime after the soil temperature drops below 10 C.

If urea is broadcast and left on the surface, it hydrolyses to form ammonia with some of it escaping to the atmosphere. This process is known as volatilization, mentioned in the previous paragraph. Banding, not only stops volatilization losses, it also slows down the nitrification process by creating an environment near the band that inhibits the activity of bacteria converting ammonium to nitrates. Thus, the N is retained in the soil as ammonium until the soil warms up in the spring.

Under Saskatchewan conditions fall banding is just as good as spring banding. This allows producers to purchase nitrogen fertilizer during the off-season when prices are generally lower than the peak spring season. This also means producers have one less chore to do in the spring, relieving some of the time pressure as well as reducing concerns about seed-placed nitrogen for single-shoot opener seeding systems.

Soil testing can help determine the right rates of nutrients to apply. If soil testing is not an option, calculate about three-quarters of the nitrogen you expect to apply and band it in the fall. Then apply the balance in the spring as determined by the soil test. Determine subsoil moisture in late fall and again in early spring, if needed, to help you determine a realistic target yield. Use this information as the basis for making final adjustments to nitrogen and other nutrient requirements prior to seeding.

FOR MORE INFORMATION

- Contact the Agriculture Knowledge Centre at 1-866-457-2377.

Saskatchewan Agriculture Scholarship offered again in 2013

Are you a creative thinker? Are you passionate about Saskatchewan? Are you preparing for an exciting career in agriculture?

If you answered yes to any of these questions, apply for a Saskatchewan Agriculture Student Scholarship worth $1,000.

It's easy. Students have to do is submit a well-researched 750-word essay or produce a three-minute creative video which clearly describes why agriculture, today more than ever, is a vibrant, diverse industry.

Essays and completed application forms must be submitted by March 1, 2013, to be considered for the scholarship.

FOR MORE INFORMATION

- Details can be found on the Ministry of Agriculture website at www.agriculture.gov.sk.ca/Scholarship.

AGRICULTURE MORE THAN EVER

The Saskatchewan Ministry of Agriculture is becoming an official partner of Agriculture More Than Ever, a multi-channel, multi-year industry initiative to improve perceptions of agriculture. This partnership aims to help the industry to reach its full potential and ensure its long-term viability. Saskatchewan is proud to be the first province in Canada to team up with the initiative and the Ministry has begun work on improving the perception of the province's industry.

Image matters

To attract the people, skills and investment needed to meet the growing demand for food, those of us involved in agriculture have a responsibility to promote the industry.

Agriculture is Canada's largest employer and a contributor of more than $130 billion dollars to our national economy. We can't ignore challenges, but when we discuss agriculture, we can choose to focus on the optimism and positive side of the industry.

Agriculture More Than Ever asks those involved in the industry to champion agriculture by engaging in more frequent discussion regarding what is going well within the industry – filling in information gaps, responding to misguided perceptions and telling the success stories about the industry, online and offline.

The way we portray agriculture has a direct and powerful effect on how the public views our industry. We know that Canadian agriculture is a modern, vibrant and diverse industry, filled with forward-thinking people who love what they do. The role of Agriculture More Than Ever is to serve as a catalyst to get people talking about the opportunities and promising future that the industry has to offer.

How can you get involved?

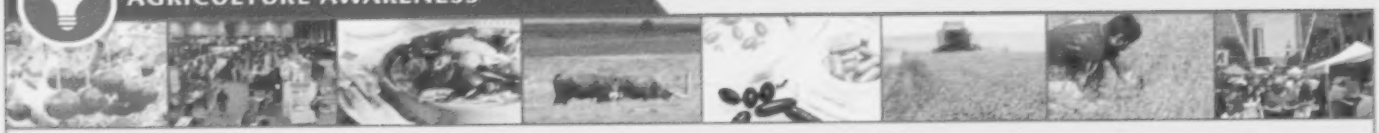
Your involvement can start today with a simple commitment to help share positive stories and change the conversation about the industry with friends, family and others.

You can also join the conversation online at www.agriculturemorethanever.ca. While there, check out the Agriculture More Than Ever promotional items available for purchase. You can also follow the cause on Twitter @agmorethanever, or like us on Facebook at www.facebook.com/agriculturemorethanever.

Agriculture has never mattered more to Saskatchewan, Canada and the world. It's time to tell a new story about agriculture and we welcome you to join us to help champion the industry.

FOR MORE INFORMATION

- Visit www.agriculturemorethanever.ca.



100 Years of agriculture education in Saskatchewan

by Jon Treloar
College of Agriculture and Bioresources
University of Saskatchewan

This September, the College of Agriculture and Bioresources welcomed its 100th class of students, a significant milestone for agriculture education in Saskatchewan. There is much to celebrate within the College, as new degree programs are added and student numbers swell to all-time highs. As the college celebrates 100 years of success, the future looks incredibly bright.

One hundred years ago, the College of Agriculture only offered the Bachelors of Science in Agriculture (B.S.A.). Today, the College has expanded its offerings significantly. In addition to the B.S.A., the College offers the Bachelors of Science in Renewable Resource Management and the Bachelors of Science in Agribusiness. Next year, the College will launch its newest degree program, the Bachelors of Science in Animal Biosciences. This degree program builds on the strengths of the College in its study of animals and expands its focus to include domestic and companion animal science. This program is expected to attract a large number of students who are interested in working with animals outside of the production realm. The two-year diploma programs, Agribusiness and Agronomy, also continue to attract increasing amounts of students.

In 100 years of training, the College has had more than 10,000 graduates and continues to be an educational leader in Canada. This year's class is one of the largest entering classes in recent history. While the prolonged strength of the agriculture economy no doubt bolsters enrolment, so does the work of the College in the high school science classrooms of Saskatchewan. The College has written numerous curriculum resources for high school sciences and has provided training for more than 250 teachers through a series of two-day workshops. Additionally, the College hosts hundreds of high school students on campus each year for experiential learning opportunities and visits dozens of career fairs. Word is spreading in Saskatchewan's high schools and beyond about the tremendous opportunities for education and careers in the agriculture industry.

The College of Agriculture and Bioresources looks forward to the next 100 years of training tomorrow's industry leaders.

FOR MORE INFORMATION

- Visit [illegible]

The 100th class of students at College of Agriculture and Bioresources. Photo courtesy of the College of Agriculture and Bioresources

NEW TOOLS FOR FARMERS

@SkGovAg

The Saskatchewan Ministry of Agriculture is now on Twitter. From the most recent crop information to agricultural facts and upcoming events, follow @SKGovAg.

Have something to suggest? The tools for farmers section will be a recurring feature. Contact agriview@gov.sk.ca to submit ideas for future editions.

Disease Investigation Unit at the WCVM – Investigates livestock health concerns

by Dr. LeeAnn Forsythe, DVM, MVetSc
Disease Surveillance Veterinarian
Livestock Branch

The Disease Investigation Unit (DIU) at the Western College of Veterinary Medicine (WCVM) has been part of the veterinary infrastructure of Saskatchewan for more than 20 years. Prairie Diagnostic Services (PDS), private veterinarians, WCVM and livestock producers are all part of the veterinary infrastructure. They detect and respond to diseases or agents that could impact animal health, public health or food safety. Since 2007, the Ministry of Agriculture has provided funding for the DIU at the WCVM to investigate unresolved or emerging livestock health concerns.

The Ministry of Agriculture has renewed its three-year funding agreement with the DIU, providing up to $50,000 per year for the next three years. The DIU offers livestock producers and private veterinarians a source of veterinary expertise for livestock health concerns that are unresolved or where resources have been exhausted. It is important for protection of the public and livestock industries, that livestock health concerns are investigated to ensure that new and emerging or foreign animal diseases are not the cause.

All investigations are initiated by the private veterinarian working with the livestock producer. Drs. John Campbell and Sarah Parker coordinate DIU investigations from the WCVM. Since 2007, the DIU has responded to 76 cases. Ten of these cases were investigated in 2011/12, including five beef cattle cases, three dairy cattle, one sheep and one swine. Some of the cases investigated this year included: abomasal ulcers in calves, possible peri-weaning failure-to-thrive syndrome in pigs, lead poisoning in beef cattle, *Campylobacter fetus subsp venerealis* abortions, multiple conditions in dairy heifers due to barn design and protein energy malnutrition. With more than half of the cases relating to nutrition, it is important for producers to remember help is available from the Ministry's regional livestock and forage specialists if they have questions or concerns about feed.

DIU plays an important role in responding to livestock health and welfare concerns. If you have any questions about DIU please contact Dr. John Campbell at (306) 966-7158 or Dr. Sarah Parker at (306) 966-1994.

The Ministry has renewed its three-year funding agreement for the DIU.

WILL YOU BE SMILING WHEN YOU PICK UP THAT CALF CHEQUE? MAKING THE MOST OF CATTLE MARKETING OPTIONS

by Kim McLean, PhD, PAg
Regional Livestock Specialist, Tisdale
Regional Services Branch

With the current volatility in commodity markets, cow-calf producers should be cautious when it comes time to sell. By evaluating the marketing options and knowing what is available outside of conventional strategies, you can tailor a marketing plan to fit your operation. You may be able to improve your bottom line by taking into consideration your timing of sale, feed resources on hand, and the costs associated with each marketing option.

Traditionally producers choose their marketing date based on pasture conditions and convenience. When other producers face a similar situation and schedule, and an influx of cattle are sold in a particular week, the result is a dip in cattle prices. There are some ways to avoid, or at least lessen, the blow of this price drop. Producers should consider options like, is it possible to background or precondition these calves? Do you have extra feed and facilities to keep these calves a month or two longer? Will holding calves longer impact financial commitments? Consulting with a Regional Livestock Specialist can help to address these questions and develop a plan that is right for you.

If you will be selling during a busy time, having an order buyer come to your herd is an excellent option to potentially increase dollars per pound returned. This buyer will offer bids for various feedlots. Off-the-farm sales may save you money by eliminating some of the costs. For instance, the buyer pays freight, you minimize shrink, and no commission is charged.

Technology is another option when it comes time to sell. Through the use of pictures and videos, selling cattle through the internet is now easier than ever. By using websites that specialize in cattle sales, you are able to reach more buyers across North America.

It is important to have close communication with your local auction marts, order buyers and feedlots to understand what they are looking for and when. Also, use this as an opportunity to discuss shrink and price slide options.

FOR MORE INFORMATION

- Contact Kim McLean, Regional Livestock Specialist, at (306) 878-8847;
- Contact the Agriculture Knowledge Centre at 1-866-457-2377; or
- Visit www.agriculture.gov.sk.ca.

Explore your marketing options to determine which choice is best for you.

Rabies in Saskatchewan: protect your family and pets

by Dr. Wendy Wilkins, DVM, PhD
Disease Surveillance Veterinarian
Livestock Branch

Rabies is a disease affecting the nervous system of warm-blooded animals, including humans. The virus is transmitted through infected saliva, usually via bite wounds, but can also be contracted when the saliva comes into contact with the mouth, nose, eyes or broken skin.

The incubation period is normally from one to three months. During this time, the virus travels along nerve cells to the brain. When the virus reaches the brain it multiplies quickly, causing brain inflammation and ultimately death.

At first a rabid animal may not have any apparent symptoms. However, you should be suspicious if an animal acts unusually tame or aggressive, becomes restless and excitable or attacks without reason, appears to have difficulty swallowing or foams at the mouth, has weakness in the limbs (may appear as progressive lameness or downer animals in livestock), or acts out of character. Examples of this include a feral cat that attacks, a pet animal that hides, or nocturnal animals out in the daytime.

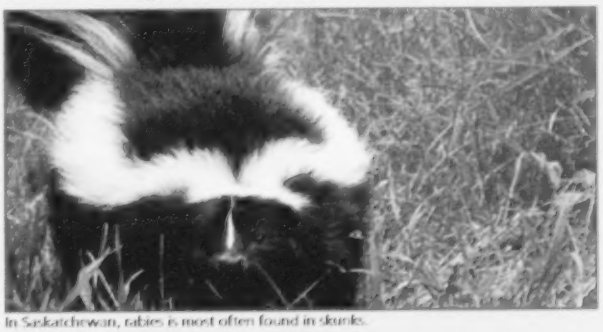
In Canada, rabies is most often found in bats, foxes, skunks and raccoons. In Saskatchewan, rabies is most often found in skunks and, to a lesser extent, bats. Domestic animals can also get the disease. Over the last five years, rabies has been confirmed in nine dogs, seven cats, four horses and one cow in Saskatchewan. Many of these had close contact with people who subsequently required preventative rabies therapy.

Because farm animals are typically housed and raised outdoors, there is potential for exposure to rabid wild animals. Domestic animals that contract rabies pose a great risk to humans. Rabies vaccination should therefore be considered for any farm animal that can interact with wild animals and also has close human contact. This is particularly true for farm dogs and cats, and especially those that may be handled by children. There were two separate cases in the U.S.A. last year, where rabies in 4-H animals resulted in dozens of people being exposed to rabies. This highlights the importance of vaccination in horses and other show animals.

Rabies vaccination, by law, must be administered by a veterinarian. It is often convenient to schedule vaccinations at the same time the veterinarian is called out for other procedures.

FOR MORE INFORMATION

- Contact your local veterinarian; or
- Contact the Agriculture Knowledge Centre at 1-866-457-2377.



In Saskatchewan, rabies is most often found in skunks.

MARKETING FEEDER CATTLE WITH A PRICE SLIDE

by Travis Peardon, PAg
Regional Livestock Specialist, Outlook
Regional Services Branch

Many buyers and sellers of feeder cattle use a price slide when the exact weight of the cattle is not known until after a price has been determined. Examples of this type of sale are selling cattle direct from ranch to feedlot, or internet or satellite auctions. In these types of sales, a scale is not available to weigh the cattle before a deal is made, so exact weights are not known and can only be estimated.

A price slide protects both the buyer and the seller if the weight of the cattle varies from the estimated sale weight. A price slide works off a base price per hundred for a set weight; with the value paid per hundredweight decreasing, as the animal's weight increases. Likewise, as the weight decreases from the base weight, the price per hundredweight increases.

In order to calculate price slide, four pieces of information are necessary: estimated pay weight, actual pay weight, bid price and magnitude of the price slide. The following formula is then used to calculate price slide.

Actual Pay Price = Bid Price + [(Estimated Pay Weight – Actual Pay Weight) x Slide/100]

For example, assume the seller estimates the weight of his feeder cattle to be 650 pounds, when the actual weight was only 600 pounds. Also, assume a $5 per hundredweight price slide and a $150 per hundredweight bid price. Through the use of the slide, the bid price would be adjusted upward by using the formula above.

Actual Pay Price = 150 + [(650 - 600) x 5/100]

=150 + [(50) x 5/100]

=150 + [2.5]

Actual Pay Price =$152.5/cwt

In this example, there is a price increase of $2.50 per hundredweight as a result of the animals weighing 50 pounds less than the estimated pay weight.

Using a price slide reduces the uncertainty surrounding the weight of feeder cattle, and helps both the buyer and seller attain a competitive market price. It is always important to negotiate the price slide as part of a sale agreement before animals leave the yard.

FOR MORE INFORMATION

- Contact your nearest Regional Livestock Specialist; or
- Phone the Agriculture Knowledge Centre at 1-866-457-2377.

Zero-till openers are effective in pasture rejuvenation

A well-managed forage stand can remain productive for many years, but it will occasionally require rejuvenation to keep it producing good livestock feed – either as hay or pasture. In order to minimize soil disturbance, most Saskatchewan producers now use zero-till equipment for sod-seeding. The technology works well: it guarantees the reliable depth control that is so important to perennial forage seeds, and provides good soil-to-seed contact that is needed for water absorption and germination.

Saskatchewan is a world leader in the design and manufacture of zero-till seeding equipment. There are several different seeders on the market, each with different opener designs. Researchers with the Prairie Agricultural Machinery Institute (PAMI) and the Western Beef Development Centre (WBDC), with the financial support of the Agriculture Development Fund, set out to compare the relative effectiveness of the various designs. Their goal was to give forage producers the information they need to successfully rejuvenate their pastures and improve their operation's profitability.

The researchers selected an old crested wheatgrass pasture in the gently rolling hills of the Termuende Research Farm at Lanigan. Plots were staked out in late May, and glyphosate was applied to some plots to suppress the grass. PAMI modified their specialized plot drill to accommodate a variety of shanks and openers. The plot drill is a specially designed, three-metre-wide drill that fits a gang of openers on two-foot centres and is equipped with highly accurate seed-metering and draft measurement equipment.

The researchers selected five of the most common commercially available openers, plus a knife for comparison:

- A ¼-inch knife (single-shoot opener that places seed in a narrow row with minimal soil disturbance);
- A paired-row deep-band opener (two rows of seed with the fertilizer placed between and below the seedbed);
- A paired-row same-plane opener (two rows of seed with the fertilizer placed between and on the same level as the seedbed);
- A sideband deep-band opener (a single row of seed placed next to and above a row of fertilizer);
- A sideband same-plane opener (a single row of seed placed next to a row of fertilizer); and
- A twin-shank opener (two shanks, each placing two rows of seed on either side of a row of fertilizer).

The field plots were divided among the five opener types and two unseeded control plots were added – on one the soil was disturbed on the other it was left untouched. Alfalfa was seeded into the plots using the different openers, and the experiment was replicated three times to give a good selection of data.

Over the course of the season, WBDC staff counted alfalfa seedlings in July and calculated forage yields in August. PAMI collected data on the seed openers' draft requirements and the amount of soil disturbance.

The PAMI researchers concluded that all six options performed equally well for sod-seeding alfalfa (although it is important to note that this is one year's data from one location). There was no difference among the treatments for forage yield or weed contribution to the forage biomass. Alfalfa seedling establishment was similar among all openers. A glyphosate application improved alfalfa seedling establishment (52 seedlings per metre versus 22 seedlings per metre) and increased alfalfa's share of the dry matter yield (37 per cent versus two per cent); however, the herbicide also reduced grass production so that total dry matter yield was lower (2100 lb. per acre versus 2700 lb. per acre). Without the competition from the grass, there was an increase in the proportion of weeds in the forage.

Mechanically, the twin-shank opener required a significantly higher drawbar draft weight than the single-shank alternatives. All of the openers left the field in a reasonably smooth condition. The researchers had suspected that the broader side-band and paired-row openers would clog with earth and leave a rough soil surface, but all the openers quickly cleared away any built-up material. The twin-shank opener disturbed the soil slightly more, displacing a thin ribbon of sod, but still left the field with a clean finish.

The results of this research provide farmers with the assurance that establishing a good stand of alfalfa does not require them to make a significant investment in a piece of equipment that uses a particular size or type of opener.

The Agriculture Development Fund provides funding to institutions, companies and industry organizations to help them carry out research, development and value-added activities in the agriculture and agri-food sector. The results produce new knowledge, information and choices in technologies, techniques and varieties for farmers, ranchers, processors and input suppliers, to improve the competitiveness of Saskatchewan's agriculture sector.

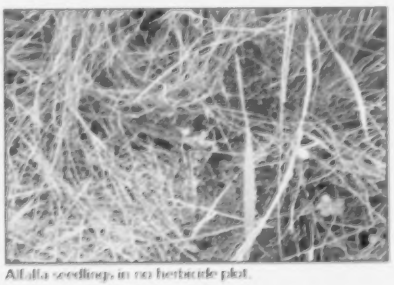
In 2012, the Saskatchewan Ministry of Agriculture committed $11.8 million in new funding for 60 ADF research projects.

FOR MORE INFORMATION

- Visit the Saskatchewan Agriculture research reports page at www.agriculture.gov.sk.ca/ADF/Search and enter the report number #20100143 into the search function.

Taking seedling counts July 27
Photos: Western Beef Development Centre

Alfalfa seedlings in Glyphosate plot.



Alfalfa seedlings in no herbicide plot.

Is sulphur adequate for irrigated crop production?

by Gary Kruger, PAg, CCA
Irrigation Agrologist
Irrigation Branch

Sulphur is an essential plant nutrient for the healthy growth of crops. Fortunately for irrigators, water from the South Saskatchewan River System contains 20 parts per million of sulphate-sulphur during the summer season. This quantity of dissolved sulphate in irrigation water fertilizes irrigated soils with 4.5 pounds of sulphur per acre for each acre-inch of applied water. Since irrigated field crops typically receive 10-12 inches of applied water during the growing season, the irrigation community has historically considered dissolved sulphur in irrigation water sufficient to meet the needs of crops grown under irrigation.

Observations suggest that sulphur management strategies in irrigated farming systems require some refinement to manage sulphur fertility during unusual weather events. A research project in the Chesterfield Irrigation District, administered by the Irrigation Crop Diversification Corporation, pointed toward inadequate sulphur in a fifth-year alfalfa crop. The quantity of sulphur in the soil at another project in 2010, at the Miry Creek Irrigation District, similarly indicated the need for additional sulfur in the alfalfa crop.

During spring 2012, the irrigated region received frequent rainfall and, in many cases, the irrigation systems did not deliver irrigation water to the fields until July. Irrigation over the growing season was substantially less than normal at about 25 per cent of the usual water application. Irrigation was applied mostly during the July-August time period. Because the majority of crop nutrient uptake occurs prior to heading of cereals and bolting of canola, relatively little irrigation water was applied prior to when canola and wheat requires sulphur uptake. The reproductive stages of crop growth are characterized by translocation of nutrients from plant tissue to the seeds as they are formed.

To address the possibility of hidden sulphur hunger, irrigators should consider a small quantity of sulphate-sulphur in fertilizer blends applied to irrigated fields. Irrigated canola and alfalfa are most likely to benefit from this practice, but cereals would also respond in years when frequent rainfall leaches sulphate from the upper horizons of the soil profile. Rates in blends of 10 pounds of sulfur per acre for cereals and 20 pounds of sulfur per acre for canola and alfalfa would prevent yield loss from inadequate sulphur during wetter springs such as 2012. The response to applied sulfur fertilizer would "dry up" following drier years once upward water movement restores the quantity of sulphate-sulphur within the crop rooting zone.

FOR MORE INFORMATION

- Contact Gary Kruger, Irrigation Agrologist, Irrigation Branch, Outlook, (306) 867-5524.

VERIFIED BEEF PRODUCTION – BUILDING CONFIDENCE IN THE CANADIAN CATTLE INDUSTRY

by Jodie Horvath, PAg
Provincial Coordinator
Saskatchewan Verified Beef Production

The Verified Beef Production (VBP) program is designed to help improve best practices for animal health protocols and improve record keeping for both cattle and feedlot operations. The program was jointly developed by Canadian veterinarians and cattle industry representatives. Verified Beef Production provides users with tools to help improve efficiency, effectiveness and accountability when it comes to animal health and food safety.

The deadline for funding applications is approaching.

Since April 1, 2009 Saskatchewan cattle producers have had access to funding for VBP approved equipment through Growing Forward, a Federal-Provincial initiative. As Growing Forward enters its fourth and final year, producers should take note of the funding application deadline of January 15, 2013.

Who is eligible?

Producers participating in a VBP workshop are eligible. A producer is defined as an owner of a beef cattle operation that has earned at least $2,500 in cattle sales the last tax year.

Funding is available for approved equipment at 50 per cent of the cost up to $750 per producer. The following equipment purchased new as of April 1, 2009 and later is approved: individual animal weigh scale components, record-keeping software, chutes/headgates with neck extenders/restraints and digital electronic thermometers.

Purchase equipment, attend a VBP workshop and submit a copy of your invoice along with an application form to your Provincial Coordinator. They are available at the workshop, online at our website, or from the VBP office.

In some cases, two or more producers may apply for funding for the same piece of equipment. Please note that each applicant must have a separate invoice showing their portion of the purchase.

FOR MORE INFORMATION or to schedule a VBP workshop in your area:

- Phone 1-888-675-6177; or
- Visit www.saskvbp.ca.

Growing Forward

Farm Business Development Initiative: finding the right advisor

by Brenda Stefanson, PAg
Regional Farm Business Management Specialist, Watrous
Regional Services Branch

Farm advisors can enhance your knowledge and help you make sound, informed decisions. However, finding the right advisor can be challenging.

Eugene and Rosanne Schemenauer spent a lifetime building a successful family farm. As their sons took on more of the farming, they considered retirement. The Schemenauers needed an advisor, but didn't know how to find one.

The Schemenauer family got valuable help from FBDI when selecting a consultant.

They contacted the Ministry of Agriculture, where they learned about the assistance available through the Farm Business Development Initiative (FBDI) and were introduced to the Guide for Selecting a Consultant. The document suggested they interview at least three consultants.

They considered the advisor's expertise in financial management and intergenerational transfer. They also looked for an advisor who understood and respected their family's goals and values and who would take the time to work with all family members. The interview process helped them find an advisor with the technical expertise and work-style that turned out to be a great fit for their needs.

Rosanne is happy with the result. "We are very pleased with the consultant and the advice provided. Succession planning is an emotional issue and our advisor helped the family to talk about the issues. He understood the family dynamic and identified each individual's strengths and talents. He helped us understand how we could work together. Talking things through is an important part of succession planning. Our advisor was able to help us through the hot spots."

The Schemenauers are implementing their succession plan. Their sons are working with the advisor to create strategies for long-term viability.

Rosanne is glad they invested the time to find a suitable advisor. "Farmers each have their own story. We are happy we found an advisor who understood and respected our story. He provided advice we can really use."

Properly selecting a consultant takes time; however, the payoff of a good choice can be enormous.

FOR MORE INFORMATION

- Contact your Regional Farm Business Management Specialist; or
- Visit the Saskatchewan Agriculture website at www.agriculture.gov.sk.ca.

GROWING FORWARD 2: THE FUTURE

by Jonathan Greuel
Assistant Director
Policy Branch

Federal, provincial and territorial governments have been working towards developing a new agriculture framework agreement to replace Growing Forward when it expires on March 31, 2013. Negotiations, which have occurred over the last two years, are quickly winding up.

Growing Forward 2 (GF2) represents a continued evolution and refinement of agriculture policy in Canada, focusing on competitiveness and innovation. Saskatchewan's agriculture sector is currently experiencing record-high incomes and growth prospects that are strong and positive for the future. The next framework and suite of programs seeks to build on the success of what is working well in the original Growing Forward, as well as explore new opportunities to enhance the ability of farmers and processors to innovate and compete across Canada and around the world.

Growing Forward began as a five-year policy framework, designed to guide programming that responds to the needs and priorities of the agriculture and agri-food sector. Agriculture, however, is dynamic and the sector continues to rapidly evolve. As such, there is a need to ensure that programming continues to respond and remain relevant to the sector's changing needs in the new agreement.

Federal and provincial governments are taking a careful look at all programs. Saskatchewan has kept an open dialogue with industry regarding the existing Growing Forward suite of programming and has held four rounds of formal consultations with stakeholders, the most recent in August of 2012, looking at options for GF2. Stakeholder engagement sessions covered a range of issues, from broad trends to specific policy needs. The Ministry has incorporated industry feedback into its negotiation strategy and will continue to keep industry informed regarding the discussions between federal, provincial and territorial governments as we work towards an agreement. Once the GF2 multilateral framework agreement is finalized this fall, the details of the bilateral agreement between Saskatchewan and the federal government will be negotiated, with a goal of full implementation by April 2013.

Growing Forward

Wildlife compensation available for grazed crops

Swath, bale and corn grazing are increasingly common practices. Provincial and federal governments recommend these practices because they offer environmental and financial benefits for producers. While these systems are intended to act as a fall and winter feed source for livestock, they are susceptible to wildlife consumption and damage as they are left in the field.

Alternative feeding systems, such as swath, bale and corn grazing, are eligible for compensation from the Saskatchewan Crop Insurance Corporation (SCIC) if wildlife damage occurs. All Saskatchewan producers are eligible for compensation under the Wildlife Damage Compensation Program; affected producers do not have to be a Crop Insurance customer to receive compensation.

All Saskatchewan producers are eligible for compensation for crop damages caused by wildlife, such as deer, elk or waterfowl.

To be eligible for compensation, the feeding system must be well managed and producers are required to take reasonable prevention measures. A well-managed feeding system generally involves appropriate fencing to control movement of livestock, an appropriate feed source, a management plan to limit waste and rotate livestock throughout the field and ability for livestock to access water/snow and shelter/windbreaks.

To register a claim, contact SCIC as soon as you notice damages to the crop. SCIC will determine the actual yield in an undamaged area of the field. Subsequent visits may be required. Please note producers are required to monitor wildlife numbers and provide evidence to show the feed was intended for consumption by livestock.

Other crop damage compensation

Compensation is available for wildlife damage, including excreta-contamination, to all seeded commercial crops. Compensation is also provided on stacked hay, silage and bales, market gardens, tree nurseries, sod farms and honey and leaf cutter bees, including their structures.

There is no cost or premium to producers, although only claims of more than $150 are eligible for compensation for crop losses. Initial payments will be made at 75 per cent of the September surveyed price, with final compensation to be paid based on a six-month average (September to February) in spring 2013.

Producers may submit a receipt for the cleaning and handling of excreta-contaminated grain. This compensation is only provided if SCIC staff adjusting the initial claim identify excreta while crops are still in the field.

FOR MORE INFORMATION

- Contact your local Crop Insurance office;
- Call 1-888-935-0000; or
- Visit www.saskcropinsurance.com.

AGRISTABILITY ADJUSTS TO CWB CHANGES

The changes to the Canadian Wheat Board (CWB) and the new options for marketing wheat and barley in Saskatchewan will impact the AgriStability Program. For the 2012 program year, AgriStability participants will notice some slight adjustments in the way they report sales of former CWB commodities.

The biggest adjustment will be the use of different codes when reporting inventory of wheat and barley on 2012 AgriStability Program forms. The Saskatchewan Crop Insurance Corporation (SCIC) has reduced the number of inventory codes for wheat and barley from 92 to 29. Instead of having different codes for the varying grades and protein levels, SCIC has limited the codes to grade of the grain marketed (i.e. Wheat, CWRS, No.2). By providing more general classes for wheat and barley inventory, the grain can be more easily recorded when reporting inventory for the AgriStability Program.

SCIC will also be providing assigned prices for the 29 wheat and barley codes. As has been done in the past, these assigned prices will be based on market data gathered from a number of sources, including the CWB and elevator companies. These prices will be used to value the inventory of the participant's wheat or barley.

Participants also have more flexibility reporting their pooled commodity information as they can now record any adjustment, interim or final payments from the sale of pooled commodities as a receivable adjustment in Section 11 of the program forms. This will help participants account for any payments still owed for the sale of their CWB grains in the 2012 program year.

SCIC will continue to offer the CWB Receivables Adjustment Worksheet for those participants who may feel the assigned prices do not reflect the actual value of the CWB commodities in inventory.

To see the list of new codes SCIC will use for wheat and barley for the 2012 program year, check out the Commodity Code Guide found at www.saskcropinsurance.com/agristability/publications.

FOR MORE INFORMATION

- Visit any of the 21 customer service offices across the province; or
- Call the AgriStability Call Centre at 1-866-270-8450.

EVENTS CALENDAR

DATE	EVENT	LOCATION	PHONE	INTERNET
October	Agriculture Month in Saskatchewan			www.agriculture.gov.sk.ca
October 1, 2012	Deadline to harvest potatoes (all varieties).		1-888-935-0000	www.saskcropinsurance.com
October 9, 2012	Post Harvest Livestock Seminar	Coderre, SK	1-866-457-2377	www.agriculture.gov.sk.ca
October 31, 2012	Deadline to pay 2012 premiums without interest being charged.		1-888-935-0000	www.saskcropinsurance.com
December 7, 2012	Third Annual Heifer Development Workshop	Alameda, SK	1-866-457-2377	www.agriculture.gov.sk.ca
December 8, 2012	Third Annual Heifer Development Workshop	Maple Creek, SK	1-866-457-2377	www.agriculture.gov.sk.ca

The Farm Machinery Custom and Rental Rate Guide and online calculator are now available

The *2012-13 Farm Machinery Custom and Rental Rate Guide* is now available. This publication gives detailed information regarding guidelines for machine ownership, operating costs, and custom and rental rates for farm machinery. The Guide can be accessed a number of ways:

- A PDF is available on the Ministry's website at www.agriculture.gov.sk.ca/custom_rental_rate_guide;
- Copies can be requested from the Agriculture Knowledge Centre at 1-866-457-2377; or
- You can pick up a copy at your nearest Saskatchewan Agriculture Regional or Satellite Office.

For the first time, the Ministry is also offering an online calculator as a companion to the latest Guide. The calculator has been created to customize the information in the printed version, allowing producers to enter their own information to tailor the costs more specifically to their circumstances. The calculator is available on the Ministry website in the same place as the print version of the Guide. It can be accessed by choosing the embedded link, "Farm Machinery Custom and Rental Rate Guide Calculator".

FOR MORE INFORMATION

- Visit your nearest Regional Office; or
- Contact the Agriculture Knowledge Centre at 1-866-457-2377.

ARTIFICIAL INSEMINATION FOR BEEF CATTLE WORKSHOP

The Ministry of Agriculture is offering this four-day course that will cover such topics as:

- Basics of artificial insemination;
- Estrous synchronization;
- Semen handling.

The workshop will be offered in February of 2013.

FOR MORE INFORMATION

- Contact Travis Peardon at (306) 867-5504; or
- Contact the Agriculture Knowledge Centre at 1-866-457-2377.

Saskatchewan Agriculture